

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

APT *et al.*

Appl. No. 09/839,536

Filed: April 23, 2001

For: **Trophic Conversion of Obligate  
Phototrophic Algae Through  
Metabolic Engineering**

Confirmation No.: 2123

Art Unit: 1633

Examiner: LEAVITT, Maria Gomez

Atty. Docket: 2715.0360001/JUK/SAS

**Reply to Election of Species Requirement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In the Office Action dated May 13, 2010, Applicants were required to elect: (1) a single species of marine algal cells as recited in claims 25 and 41, (2) a single species of Baccilariophyta cells as recited in claims 27 and 43 if "Baccilariophyta" is elected as the species of marine algal cell, (3) a single species of promoter as recited in claims 31 and 47, (4) a single species of hexose transporter as recited in claims 38, 39, 54 and 55, (5) a single species of catabolizable carbon source as recited in claim 32, and (6) a single species of sucrose transporter.

Applicants hereby provisionally elect: (1) the "Baccilariophyta" species of marine algal cells as encompassed by claims 1-55, (2) the "Phaeodactylum" species of Baccilariophyta cells as encompassed by claims 1-55, (3) the "fcpA" species of promoter as encompassed by claims 1-55, (4) the "Glut1" species of hexose transporter as encompassed by claims 1-3, 5-8, 10-15, 17-33, 35, 37-38, 40-49, 51, and 53-54, (5) the "sugar" species of catabolizable carbon source as encompassed by claims 1-55, and (6) the "sut1" species of sucrose transporter as encompassed by claims 1-4, 6-9, 11-16,

18-34, 36, 40-50, and 52. These elections of species are made without prejudice to or disclaimer of the other claims or inventions disclosed.

These elections are made **with traverse**.

Applicants respectfully believe that the Election of Species Requirement is in error in stating that a search of all species would be an "examination and search burden" *See* Office Action at pg. 5. Applicants respectfully submit that a search for any one of the species would overlap a search for any of the remaining species. For example, a search for the fucoxanthin chlorophyll binding protein promoter *fcpA* would necessarily overlap searches for *fcpB*, *fcpC*, and *fcpE*. This follows because the searches would necessarily relate to common functions of these promoters. Further, the search would be conducted in the same field of search, *i.e.*, class and subclass, and use identical or overlapping search queries. A similar rationale applies to searches for the species of hexose transport proteins and the sucrose transporter proteins. A search for one hexose transporter or sucrose transporter would necessarily overlap a search for the others based on common functional characteristics, and the searches would be conducted in the same field of search using overlapping search queries. Finally, a search for one marine algal cell would necessarily overlap searches for other marine algal cells based on common marine habitats and common characteristics of the cells. Similarly, a search for one type of Bacillariophyta cell, such as *Phaeodactylum*, would necessarily overlap searches for other types such as *Nitzschia*, *Navicula*, and *Thalassiosira* cells based on their common relation as Bacillariophyta cells.

Based on the foregoing, reconsideration and withdrawal of the Election of Species Requirement, and consideration and allowance of all pending claims, are respectfully requested.

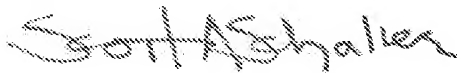
It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

### ***Conclusion***

Prompt and favorable consideration of this Reply to Election of Species Requirement is respectfully requested. Applicants believe the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Scott A. Schaller  
Attorney for Applicants  
Registration No. 60,167

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1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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